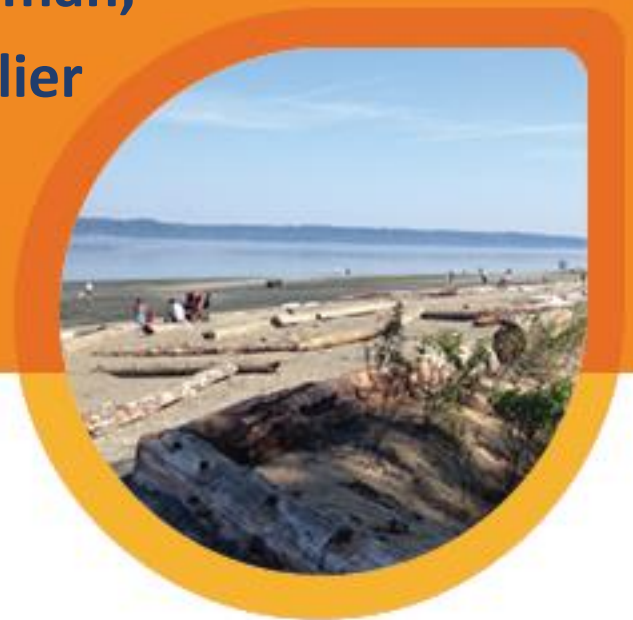


Indicator Evolution Project (IEP)

EVOLVING THE PORTFOLIO OF INDICATORS TO ASSESS AND REPORT ON THE CONDITION AND RECOVERY OF THE PUGET SOUND ECOSYSTEM: Moving From Theory to Practice

- Sandie O'Neill, Connie Sullivan, Scott Redman,
• Kari Stiles, Haley Harguth and Tracy Collier



Environmental indicators are being used track the recovery of Puget Sound

The Partnership is required “to identify environmental indicators measuring the health of Puget Sound”.

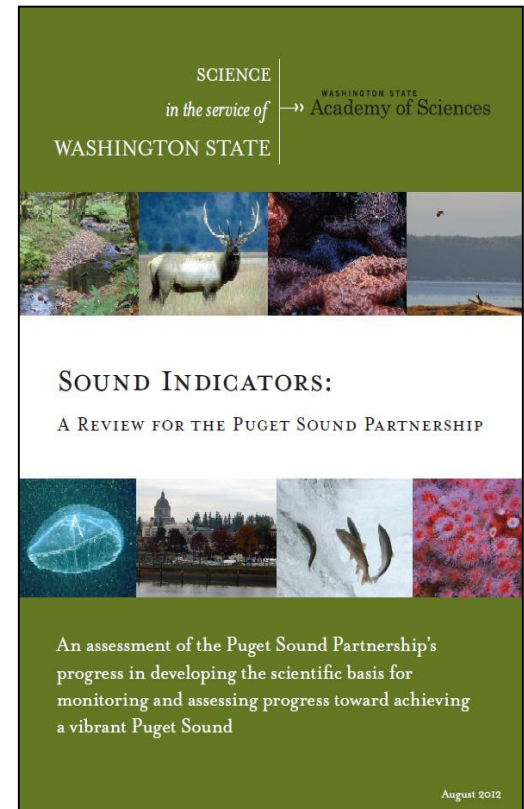
Leadership Council adopted ***Vital Signs*** in 2010/2011 as surrogates of the status of the ecosystem.

Washington State Academy of Sciences reviewed the indicator selection process and the list of Vital Signs in 2012.



WAS Concerns

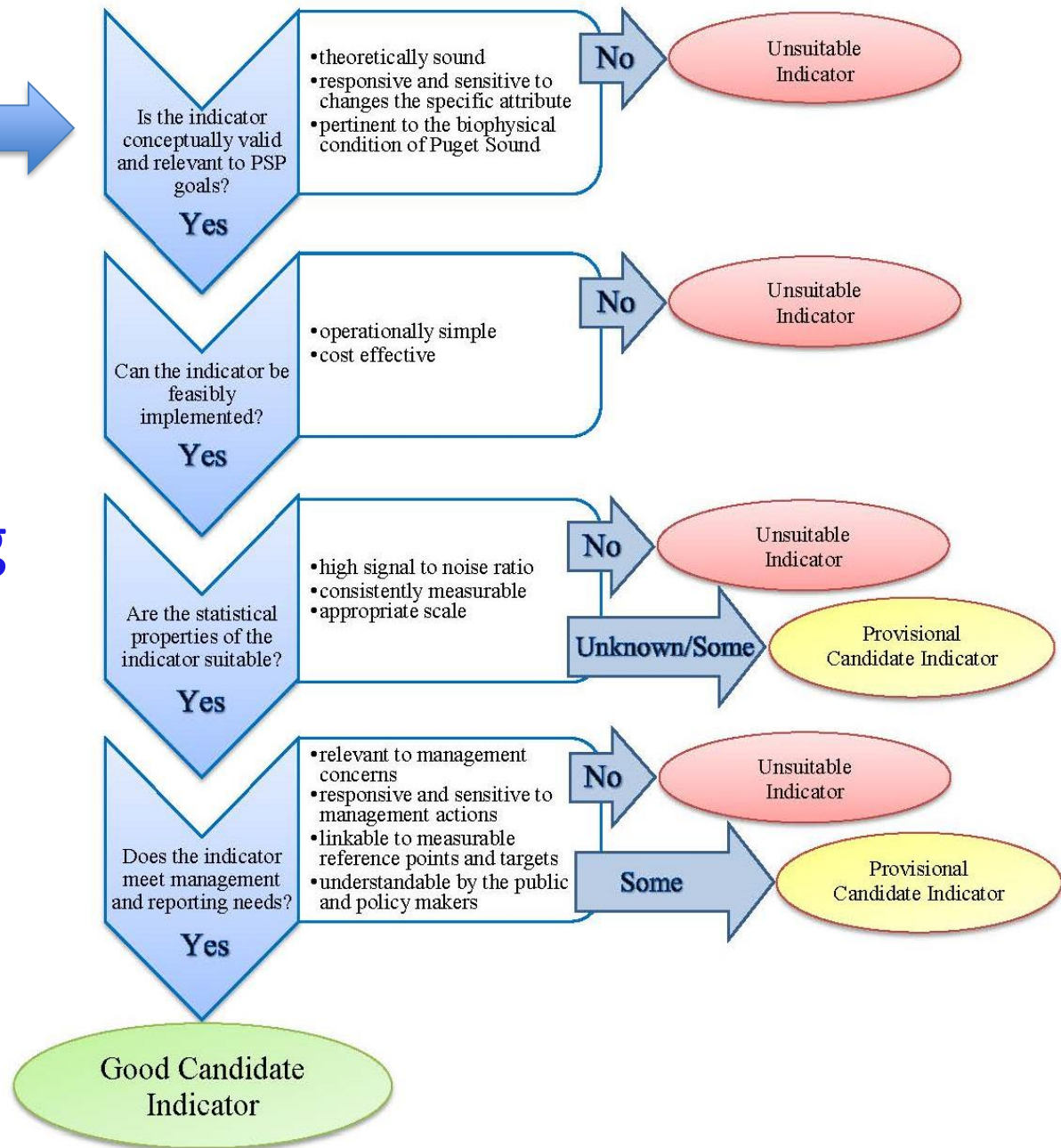
- **Process:** Framework & conceptual model for selecting ecological attributes needed refinement.
- **Process:** The evaluation of indicators was **fatally flawed** – criteria did not emphasize scientific validity.
- **Vital Signs:** Number of ecological attributes measured was inadequate.
- **Vital Signs:** Some indicators needed refinement.



WA State Academy of Science Review
Orians et al. 2012

**Potential
Indicators**

Decision Tree for Evaluating Indicators





Two Indicator Portfolios proposed

Assessment Indicators

Large set of detailed metrics that provides a robust & rigorous understanding of the ecosystem structure and function

Used by scientists & managers to diagnose specific problems, develop strategies, and monitor responses of the ecosystem on multiple time scales.

Vital Signs



Limited number of scientifically meaningful, but simple metrics that provides a coarse-grained evaluation of ecosystem status & trends

Used to inform the public & policy makers about the state of the ecosystem